

WHAT IS CLAIMED IS:

1. A stator structure of a variable reluctance resolver comprising:

a stator core having a circular shape, in which a plurality of fixed magnetic-poles each having a fixed magnetic-pole tooth project toward the center of a circular yoke member, and a plurality of planar bodies are laminated;

a first stator magnetic-pole assembly including coil winding sections having the same shape and number as the fixed magnetic poles each having the fixed magnetic-pole teeth of the stator core, and a part mounting section for extracting stator windings; and

a second stator magnetic-pole assembly including coil winding sections having the same shape and number as the fixed magnetic poles each having the fixed magnetic-pole tooth of the stator core, and including no part mounting section,

wherein the stator cores are sandwiched by the first stator magnetic-pole assembly and the second stator magnetic-pole assembly in a manner such that the fixed magnetic poles and the coil winding sections overlap to form a stator assembly; and

wherein the stator assembly having the stator windings wound around the coil winding sections thereof is surrounded by a synthetic resin, characterized in that:

said synthetic resin surrounds said first stator magnetic-pole assembly and said second stator magnetic-pole assembly at said stator winding sections in a manner such that a surface at which said fixed magnetic-pole teeth of said stator core face a rotor is exposed, and a surface of said synthetic resin forms the same circumferential surface as

the surface at which said fixed magnetic-pole teeth of said stator core face said rotor.

2. The stator structure of a variable reluctance resolver according to Claim 1, wherein said first stator magnetic-pole assembly and said second stator magnetic-pole assembly include uneven sections for increasing a creeping distance at a contact section relative to said synthetic resin.

3. The stator structure of a variable reluctance resolver according to Claim 1 or 2, wherein said uneven section for increasing the creeping distance is provided at the surface that comes into contact with said synthetic resin on overhung section for retaining said stator winding wound around said coil winding section of said stator assembly.

4. The stator structure of a variable reluctance resolver according to any one of Claims 1 to 3, wherein said circular stator core has a plurality of through holes along the outermost periphery of said surrounding synthetic resin.

5. The stator structure of a variable reluctance resolver according to any one of Claims 1 to 4, wherein said part mounting section provided for said first stator magnetic-pole assembly, and said circular stator core have a plurality of through holes, respectively, and said through holes are arranged at positions where said through holes of said part mounting sections correspond to those of said circular stator core.

6. The stator structure of a variable reluctance resolver according to any one of Claims 1 to 5, wherein said synthetic resin, said first stator magnetic-pole assembly, and said second stator magnetic-pole assembly have almost the same thermal expansion coefficient.